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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,422	05/20/2005	Matti Ahlqvist	100700 - 1P US	3008

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EXAMINER	
BARKER, MICHAEL P	
ART UNIT	PAPER NUMBER
1626	

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/516,422	AHLQVIST ET AL.	
	Examiner	Art Unit	
	Michael P. Barker	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 May 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *8/28/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Applicant canceled **Claims 17** and **18**. Therefore, **Claims 1-16** and **19** are pending.

Priority

This Application is a 371 of PCT/SE03/00859, filed May 27, 2006. Acknowledgment is made of Applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d) by Application no. 0201661-6, filed in the Swedish Patent and Registration Office on May 31, 2002 and has been placed of record in the file. This Application names an inventor or inventors named in the prior application.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on, August 28, 2006 was correctly filed. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement was considered by the Examiner.

Claim Rejections - 35 USC § 102(e)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-13, 16, and **19** rejected under 35 U.S.C. 102(e) as being anticipated by WIPO Publication No. WO 02/44145 A1, published June 6, 2002, having an international filing date of November 30, 2001. The '145 publication discloses broad Markush language in **Claim 1**, p. 184, which encompasses compounds of the instantly claimed formula I, depicted in **Claim 1**. **In Claim 20**, pp. 188-190, the '145 publication claims two species specifically claimed by the instant **Claim 7**, see: p. 189, line 12 and p. 190, line 19. **Claim 21**, p. 190 of the '145 publication further claims pharmaceutical formulations including the compounds defined in any one of **Claims 1** to **20**. Lastly, **Claim 35** of the '145 publication anticipates Applicant's method **Claim 19**.

Obviousness Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with the instant Application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. **Claims 1-10**, **12**, and **16** are rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over:

Claim 55 of copending Application No. 10/432,411, on which a notice of allowance has been issued on 01 June 2006.

2. Likewise, **Claim 16** is provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over:

Claims 3 and **5-9** of copending Application No. 10/481,232;

Claims 1-8 of copending Application No. 10/516,423; and

Claims 1-10 of copending Application No. 10/516,420

The latter rejection is a provisional double patenting rejection since the conflicting claims have not yet been patented.

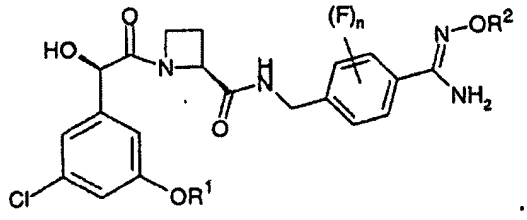
Applicant's instant elected invention discloses the compounds and compositions of formula (I), depicted in **Claim 1**. **Claims 2-10** and **12** narrow the scope of **Claim 1**'s broader Markush Language, and **Claim 16** is drawn to a pharmaceutical formulation of **Claim 1**.

Determination of the Scope and Content of the Allowed and Co-pending Applications

Claim 55 of allowed Application No. 10/432,411 discloses the compound, "Ph(3-Cl)(5-$OCHF_2$)-(*R*)CH(OH)C(O)-Aze-Pab(OMe) or a pharmaceutically acceptable salt thereof".

Claims 3 and **5-9** of copending Application No. 10/481,232 disclose various permutations of a pharmaceutical formulation, "wherein the basic pharmaceutically active

ingredient is ximelagatran or Ph(3-Cl)(5-$OCHF_2$)-(*R*)CH(OH)C(O)-(*S*)Aze-Pab(OMe); Ph(3-Cl)(5-$OCHF_2$)-(*R*)CH(OH)C(O)-(*S*)Aze-Pab(2,6-diF)(OMe); Ph(3-Cl)(5-OCH_2CH_2F)-(*R*)CH(OH)C(O)-(*S*)Aze-Pab(OMe)."

Claims 1-8 of copending Application No. 10/516,423 and **Claims 1-10** of copending Application No. 10/516,420 disclose a pharmaceutical composition comprising a compound of formula (I): 

Ascertainment of the difference between the prior art and the claims (MPEP § 2141.02)

ODP Rejection: The differences between the instant Application and copending Application No. 10/432,411 are slight. **Claim 55** of copending Application No. 10/432,411 is drawn to a compound "or a pharmaceutically acceptable salt" of a compound which is claimed by the instant Application in **Claim 7**, namely Ph(3-Cl)(5-$OCHF_2$)-(*R*)CH(OH)C(O)-Aze-Pab(OMe). The difference lies in the fact the instant Application is drawn to "pharmaceutically acceptable acid addition salt[s]. . ." (p. 4, **Claim 1**), whereas copending Application No. 10/432,411 claims "pharmaceutically acceptable salt[s]". According to p. 21, line 15 of the Specification of copending Application No. 10/432,411, "The term 'pharmaceutically-acceptable derivatives' of compounds. . .includes pharmaceutically-acceptable salts (e.g. acid addition salts)." To one of ordinary skill in the art, it is clear a pharmaceutically acceptable salt encompasses a pharmaceutically acceptable addition salt. Thus, one of ordinary skill in the art would be motivated to produce the species common to the Applications. The motivation to make

the instantly claimed compounds derives from the expectation that structurally identical compounds would also possess identical activity. It is also not a stretch to imagine one of ordinary skill in the art would be motivated to create a pharmaceutical formulation, as claimed in **Claim 16**, using a pharmaceutically acceptable salt of the compound of **Claim 55** claimed in the copending Application.

Provisional ODP Rejection: The same reasoning can be extrapolated to provisionally reject **Claim 16** based on copending Application Nos. 10/481,232 (**Claims 3** and **5-9**); 10/516,423 (**Claims 1-8**), and 10/516,420 (**Claims 1-10**). Each of the aforementioned copending Applications claim pharmaceutical formulations containing overlapping pharmaceutically active ingredients as the instant Application.

Finding of prima facie obviousness - rationale and motivation (MPEP § 2142-2413)

One skilled in the art would have found the claimed compounds prima facie obvious over the co-pending applications because the instantly claimed compounds fall within the claims of the co-pending applications and the preferred species for the variables are the same and claimed in all the Applications. Furthermore, the co-pending Applications teach one of ordinary skill in the art how to create the compounds claimed in the instant Application. Given the preferred embodiments and the specific embodiments listed in the claims, one of ordinary skill in the art would be motivated to produce the species common to the Applications. The motivation to make the claimed compounds derives from the expectation that structurally similar compounds would possess similar activity (i.e. pharmacological use). Both the instantly claimed compounds and the compounds of the co-pending applications are used for producing an antibacterial effect in a warm blooded animal. Although, the conflicting claims are not precisely identical, they are not

patentably distinct from each other because applicant's instantly claimed invention is disclosed in the co-pending applications. Therefore, one skilled in the art would have found the slight variation obvious when faced with the co-pending applications because the compounds are used for the same pharmacological use so one skilled in the art would expect similar properties and results.

Terminal Disclaimer

According to MPEP 804(I)(B)(1),

> Where there are three applications containing claims that conflict such that an ODP rejection is made in each application based upon the other two, it is not sufficient to file a terminal disclaimer in only one of the applications addressing the other two applications. Rather, an appropriate terminal disclaimer must be filed in at least two of the applications to link all three together. This is because a terminal disclaimer filed to obviate a double patenting rejection is effective only with respect to the application in which the terminal disclaimer is filed; it is not effective to link the other two applications to each other.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 19 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 19 is broad in that it encompasses and claims treatment of widely divergent diseases, namely any "condition where inhibition of thrombin is required". However, the Specification contains no evidence supporting the use of Applicant's claimed compositions for the treatment of every disease where inhibition of thrombin is required. Applicant's **Claim 19** is interpreted as a claim of the mechanism of action of the claimed compositions rather than a method of treatment of a particular disease or condition. Allowance of such a claim would serve to grant Applicant the right to exclude others from using the claimed compositions from the treatment of every disease where inhibition of thrombin is required, from Alzheimer's disease to different types of cancers, when there is no evidence Applicant's compositions are capable of treating such a wide variety of disorders.

There are no working examples provided nor direction given correlating the claimed compounds with the claimed method of use. While the level of skill in the art is high, the current state of the art is not such that it is well-known that compounds similar to those claimed are capable of treating every disease in which inhibition of thrombin is required. The predictability of the pharmacological arts require a great amount of experimentation both *in vitro* and *in vivo* prior to the determination that a given composition is capable of treating a given disorder.

According to the reasons above and lack of guidance in the Specification, it would not be predictable that the methods of treatment in **Claim 19** would function as contemplated. Thus, it would require undue experimentation by one skilled in the art to practice the invention as claimed. Therefore, **Claim 19** is rejected under 35 U.S.C. 112, ¶1.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Michael P. Barker whose telephone number is (571) 272-4341. The Examiner can normally be reached on Monday-Friday 8:00 AM- 5:00 PM. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mr. Joseph K. McKane, can be reached at (571) 272-0699. The unofficial fax phone for this group are (571) 273-8300.

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